

OWNER'S MANUAL

21" SELF- PROPELLED ROTARY MOWER

Model Number
123-294A

Important:
Read Safety Rules and
Instructions Carefully

Thank you for purchasing an
American built product.

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LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.



This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available at your nearest engine authorized service center.



To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

SAFE OPERATION PRACTICES FOR WALK-BEHIND MOWERS

TRAINING

1. Read this owner's manual carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Your rotary mower is a precision piece of power equipment, not a plaything. Therefore, exercise extreme caution at all times.
3. Never allow children to operate a power mower. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, an object may have been overlooked and could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks, wire, bones and other foreign objects which could be picked up and thrown by the mower in any direction and cause serious personal injury to the operator or any others allowed in the area.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Do not wear loose fitting clothing that could get caught on the mower.
4. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
6. The blade control handle is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. The blade control handle must operate easily in both directions.
7. Never attempt to make a wheel or cutting height adjustment while the engine is running.
8. Mow only in daylight or in good artificial light.
9. Never operate the equipment in wet grass. Always be sure of your footing. A slip and fall can cause serious personal injury. Keep a firm hold on the handle and walk, never run.

OPERATION

1. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times as the rotating blade can cause injury.
3. Stop the blade when crossing gravel drives, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging the chute. The cutting blade continues to rotate for a few seconds after the engine is shut off. Never place any part of the body in the blade area until you are sure the blade has stopped rotating.
7. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
8. Do not run the engine indoors.
9. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. Always be sure of your footing. A slip and fall can cause serious personal injury.
10. Always disconnect electric mowers (line operated) before cleaning, repairing or adjusting.
11. Never operate mower without proper guards, plates or other safety protective devices in place.

MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
5. Check the grass catcher bag frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.

SAFE OPERATION PRACTICES (Continued)

BLADE BRAKE/CLUTCH MAINTENANCE

NOTE: Any required repair work on the blade brake/clutch should be performed by an authorized service dealer. If you cannot locate an authorized service dealer, contact the manufacturer as set forth on your copy of the Owner's Registration Card.

1. The blade brake/clutch hand control is a safety device. Never attempt to bypass its operation. Doing so makes the safety device inoperative and may result in personal injury through contact with the rotating blade. This hand control must operate freely in both directions.
2. Striking a solid object can cause damage to the blade brake/clutch or to the engine crankshaft. Extensive vibration of the mower during operation is an indication of damage and the

unit should be promptly inspected and repaired.

3. A leak in the lower engine crankshaft oil seal could expose the blade brake/clutch friction pads to excess oil resulting in blade or brake slippage, which could increase the stopping time of the blade. Oil collection on the floor beneath the mower during storage may be an indication of an oil seal leak. The unit should be checked by an authorized service dealer.
4. Periodically inspect the inner control cable in the area where it attaches to the hand control. If the cable becomes frayed, it could cause the blade brake/clutch to operate improperly. Also, be careful to avoid pinching the blade brake/clutch control cable when using the folding handle feature (on units so equipped).

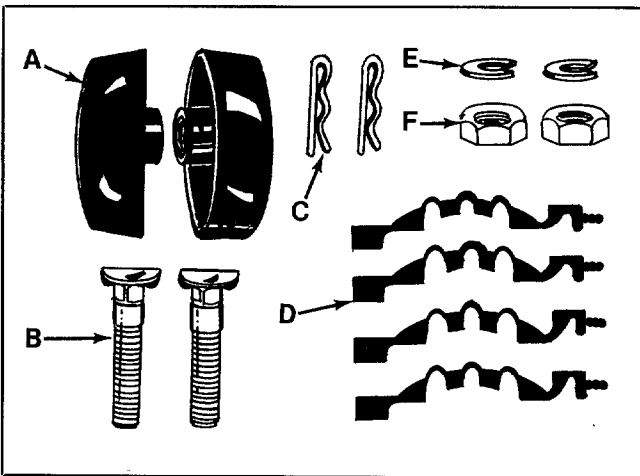


FIGURE 1.

ASSEMBLY



NOTE

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see separate engine manual for proper fuel and engine oil recommendations.

Contents of Hardware Pack: (See figure 1)

- A (2) Hand Knobs
- B (2) Curved Carriage Bolts 5/16-18 x 1.75" Long
- C (2) Hairpin Cotters
- D (4) Cable Ties
- E (2) Lock Washers 5/16" I.D.
- F (2) Hex Nuts 5/16-18 Thread

1. Remove the lawn mower, loose parts, hardware pack and literature from the carton. Make certain all parts and literature have been removed before the carton is discarded.
2. Extend all control cables and place on the floor. Be careful not to bend or kink control cables.
3. Place lower handle in position over weld pins in handle mount brackets on deck. Make certain the instruction label on the lower handle can be read from the operating position. Secure by placing two hairpin cotters (C) in inner hole on weld pins. See figure 2.



NOTE

It may be necessary to bend the ends of the lower handle outward slightly to obtain a snug fit against the bracket.



NOTE

There are two (2) holes in the handle mount brackets. Place hairpin cotter in the inner hole for operation. The outer hole is for storage.

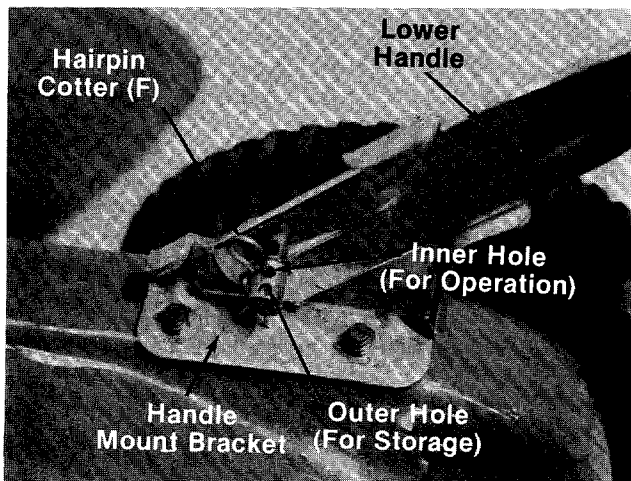


FIGURE 2.

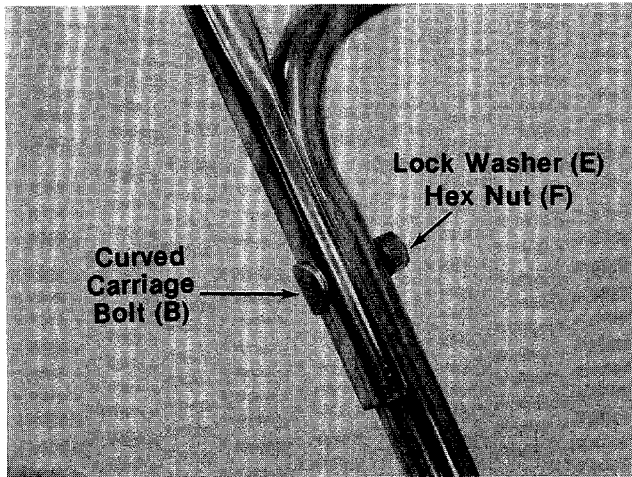


FIGURE 3.

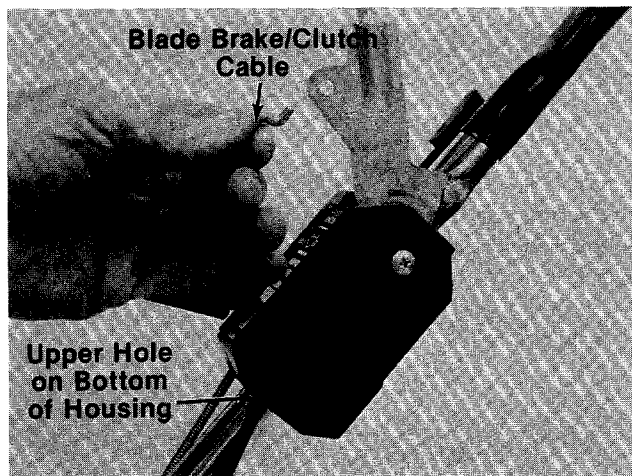


FIGURE 4.

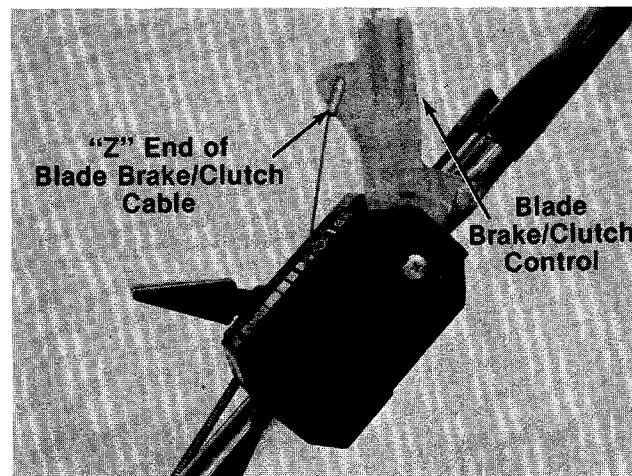


FIGURE 5.

4. Place upper handle in position over lower handle. Control housing should be on the **right** side of the handle.

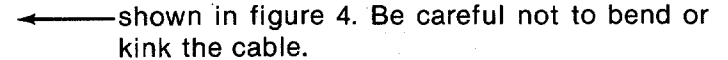


Reference to left or right side of machine is determined from operator's position at the handle facing forward.

- ← **A. Units with Non-Folding Handle**—Secure upper handle with two curved carriage bolts (B), lock washers (E) and hex nuts (F). See figure 3.
- B. Units with Folding Handle**—Secure with two carriage bolts (B) and hand knobs (A). The knobs can be either to the inside or outside of the handle.

5. The blade brake/clutch cable is the cable which has a "Z" fitting on the loose end, and is attached to the blade brake/clutch underneath the deck.

Place the end of the blade brake/clutch cable into the upper hole on the bottom of the throttle control housing, and through the slot as shown in figure 4. Be careful not to bend or kink the cable.



The control cables must be assembled under the lower handle.

6. Snap the end of the cable into the throttle control housing.
7. Hook the "Z" end of the blade brake/clutch cable into blade brake/clutch control handle.



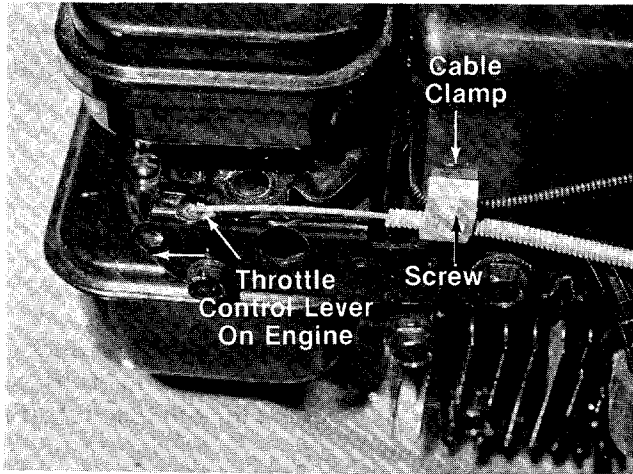


FIGURE 6.

8. Place the throttle control lever on the handle in "Fast" position.
9. Push the throttle control lever on the engine to the full open position (as far toward the outside of the unit as it will go) as shown in figure 6.
10. The throttle control cable is attached to the upper handle. Hook the "Z" end of the throttle control cable into the hole in the control lever on the engine.
11. Loosen (do not remove) the screw on the cable clamp shown in figure 6. Slip the control casing under the clamp. With the throttle lever on the engine still in the full open position, tighten the screw to secure the throttle control cable.

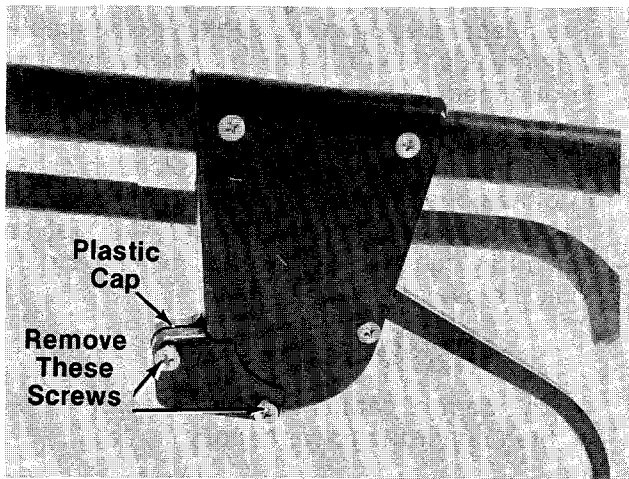


FIGURE 7.

12. Remove the two screws located beneath the clutch control housing on the upper handle as shown in figure 7. A Phillips screwdriver is required. Remove the plastic cap.

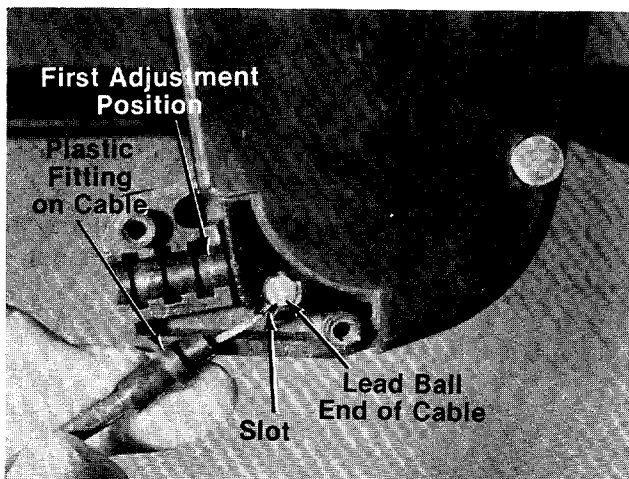


FIGURE 8.

13. The drive clutch control cable is attached to the deck. Place the lead ball end of the cable into the fitting provided in the end of the clutch control lever. Slip the wire into the slot as shown in figure 8.
14. Place the plastic fitting on the control cable into the first adjustment position on the clutch control housing. See figure 8.
15. Replace the plastic cap. Secure with the two Phillips head screws.



Drive clutch adjustment must be checked before the unit is operated, as described in the operation section.

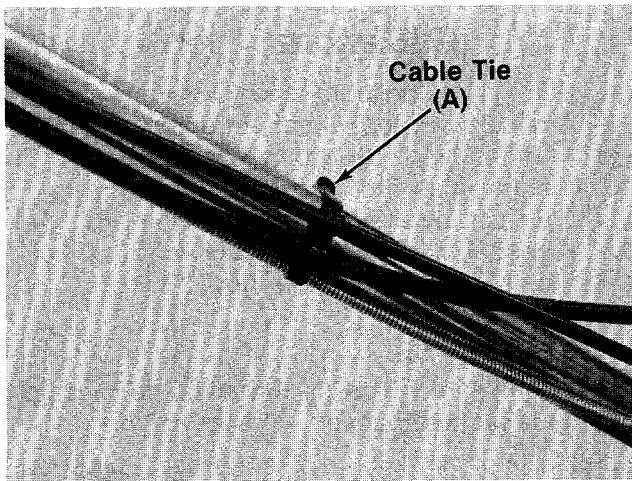


FIGURE 9.

- 16. Secure the control cables to handle with cable ties (A) provided. See figure 9.
- 17. Check all nuts and bolts for correct tightness.

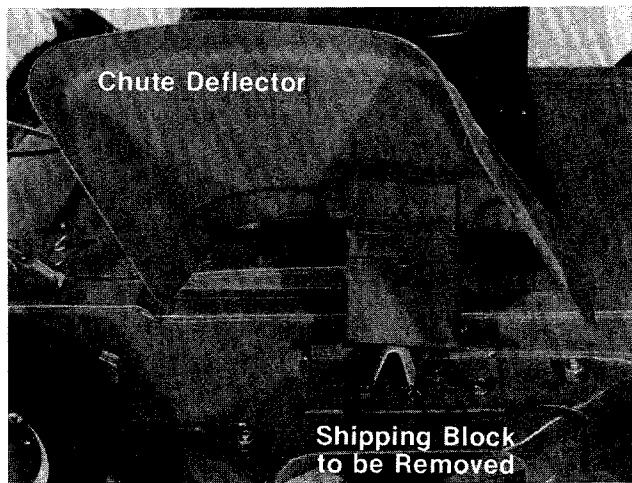


FIGURE 10.



Please note that the chute deflector on your mower is in an upright position. It is held in that position by a shipping block. This block is used for shipping purposes only. It must be removed and discarded before your mower is put into operation. See figure 10.

CONTROLS

THROTTLE CONTROL

The throttle is located on the right side of handle. It controls engine speed. See figure 11.



FIGURE 11.

DRIVE CLUTCH CONTROL

Squeezing the drive clutch control engages the drive mechanism to the rear wheels. Releasing the clutch control stops the rear wheels from driving. Release the drive clutch control to slow down when negotiating an obstacle, making a turn or stopping. See figure 12.

WARNING

THIS CONTROL MECHANISM IS A SAFETY DEVICE. NEVER ATTEMPT TO BYPASS ITS OPERATIONS

BLADE BRAKE/CLUTCH CONTROL

The blade brake/clutch control is located on the upper handle of the mower. The blade brake/clutch handle engages and disengages the blade.

To engage the blade, pull the side release lever away from the unit. See figure 12. Pull the blade brake/clutch control handle down against the upper handle. Release side lever.

Release the blade brake/clutch control handle to stop the blade from turning.

NOTE

If the engine should stall when the blade is engaged, move the throttle control lever to a faster engine speed.

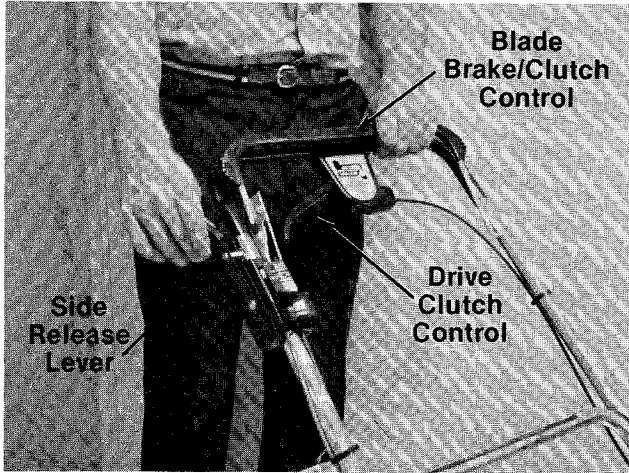


FIGURE 12.

OPERATION

DO NOT OPERATE THIS MOWER WITH THE CHUTE DOOR OPEN, UNLESS THE COMPLETE GRASSCATCHER IS PROPERLY MOUNTED ON THE MOWER.



FIGURE 13.

Keep hands and feet away from the chute area on cutting deck. See figure 13.

NOTE

For shipping purposes your mower is set with the wheels in a low cutting height position. For best results raise the cutting position until it is determined which height is best for your lawn. See cutting height adjustment section.

BEFORE STARTING

1. Fill sump with oil as instructed in the separate engine manual packed with your unit.
2. Fill fuel tank, using clean, fresh, lead-free, low-lead or regular grade leaded gasoline. Fill tank completely!

DO NOT MIX OIL WITH GASOLINE.

3. Attach spark plug wire to spark plug.
4. Before each use, check for proper drive clutch operation by performing the following before starting the engine:

With the drive clutch control released, push mower forward. It should move freely. Pull mower backward. It should move freely.

With the drive clutch control engaged (lever squeezed against upper handle), push mower forward. It should move freely. Pull mower backward. The rear wheels should lock up. If they do not, adjust the clutch control as specified under Drive Clutch Control Adjustment on page 9.

TO START ENGINE

1. Move throttle control lever to "START" position.
2. With the blade brake/clutch handle **released**, crank engine by pulling starter handle with a quick firm pull. Do not pull out so far that rope stops with a jerk as this will cause rope failure. Do not allow rope and handle to snap back into place.
3. After two or three full firm pulls on starter, or as soon as engine starts, move throttle control to desired engine speed.

TO STOP ENGINE

1. Release the blade brake/clutch handle to stop the blade. To stop engine, move throttle control lever to "STOP" position.
2. Disconnect spark plug wire from spark plug to prevent accidental starting while equipment is unattended.

USING YOUR ROTARY MOWER

Be sure that lawn is clear of stones, sticks, wire, or other objects which could damage lawn mower or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.

Operate a new engine at intermediate speeds and light load for the first few hours as you would a new automotive engine.

For best results, do not cut wet grass because it tends to stick to the underside of the mower, preventing proper discharge of grass clippings, and could cause you to slip and fall. New grass, thick grass or wet grass may require a narrower cut. Blade speed should be adjusted to the condition of the lawn.

The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion, then recut at right angles to first direction.

For best results, cut off one-third or less of the total length of the grass. Lawn should be cut in the fall as long as there is growth.

This mower is designed to be operated at full throttle to give you the best cut and do the most effective job of bagging the cut grass.



IMPORTANT

If you strike a foreign object, stop the engine. Remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

Striking a solid object can cause damage to the blade brake/clutch or to the engine crankshaft. Extensive vibration of the mower during operation is an indication of damage. The unit should be promptly inspected and repaired.

ADJUSTMENTS



CAUTION

Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

DRIVE CLUTCH CONTROL ADJUSTMENT

If the unit does not self-propel with the drive clutch control engaged, remove the plastic cap from beneath the drive clutch control housing. Move the plastic fitting on the control cable to the next adjustment position on the left. Reassemble the plastic cap and retest. See figure 14.

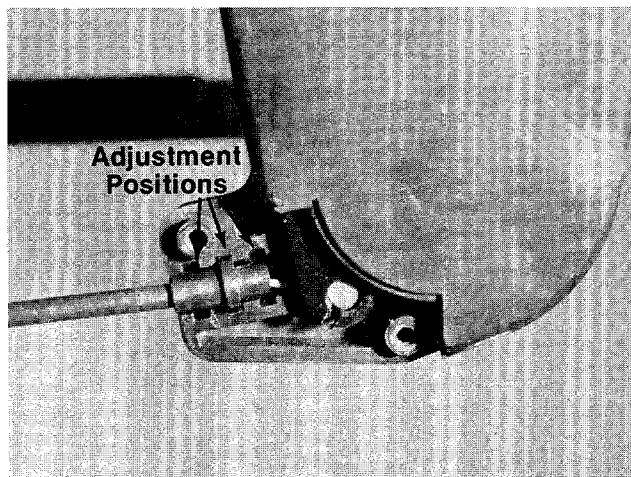


FIGURE 14.

CUTTING HEIGHT ADJUSTMENT

A single lever adjusts all four wheels at one time. Cutting height adjustment is made by moving the height adjustment lever away from the engine and then forward or backward. The lever will lock in one of seven cutting heights, from 1" to 3". See figure 15.

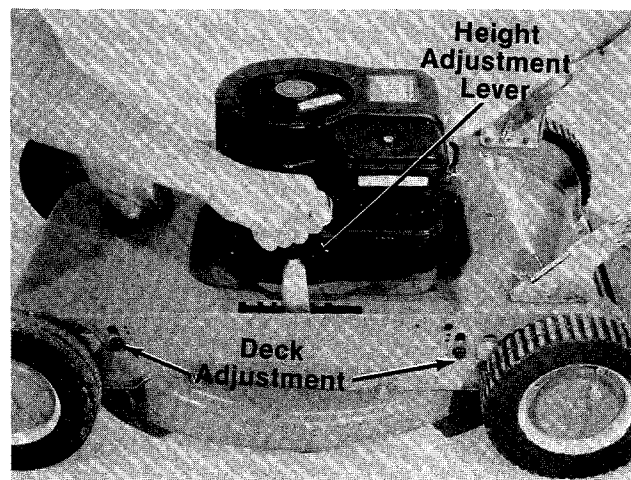


FIGURE 15.

CUTTING DECK ADJUSTMENT

An adjustment is provided on the left side of the upper deck, next to the front and rear wheels, so that an even cut may be obtained. This adjustment compensates for wear or use of the grass catcher. See figure 15.

To level the deck, loosen (do not remove) the self-tapping screw. Depress the pivot bracket so that the tab comes out of the adjustment hole. Pivot the bracket up or down as necessary, selecting one of the five adjustment holes. Release the bracket, and tighten the self-tapping screw securely. Both front and rear brackets should be in the same relative position.

THROTTLE

If adjustment becomes necessary, the throttle control wire assembly can be reset as follows:

1. Loosen, but do not remove, the screw securing throttle control wire assembly at engine. See figure 6.
2. Move throttle control lever on handle to "FAST" position.
3. Move control lever on engine to full open position. Retighten screw to secure throttle control wire assembly.

CARBURETOR ADJUSTMENTS



If any adjustments are made to the engine while the engine is running (e.g. carburetor), disengage all clutches and blades. Keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustments may be required to compensate for differences in fuel, temperature, altitude and load.

To adjust carburetor, refer to the separate engine manual packed with your mower.

LUBRICATION



Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

Blade Brake/Clutch—Lubricate the pivot points on the blade brake/clutch handle and the cable at least once a season with light oil. The control must operate freely in both directions.

Chute Deflector—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

Wheels—Mower may be provided with ball bearing wheels. Lubricate at least once a season with light oil. Also, if the wheels are removed for any reason, lubricate the surface of the axle bolt and the inner surface of the wheel with light oil. A 4 oz. plastic bottle of light oil lubricant is available. Order part number 737-0170. Engine oil may also be used.

Engine—Follow engine manual for lubrication instructions.

Throttle—Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil for ease of operation.

Chain—Periodically lubricate the chain with appropriate chain lubricant. A stiff or rusted chain can be restored by removing the master link, soaking the chain in kerosene or a solvent, letting it air dry and wiping the chain with a rag saturated with lubricant.

If the rotary mower is operated in a sandy area, the chain should not be lubricated with oil. Excessive oil on a chain will collect dirt and cause excessive wear on the chain and sprockets.

Rear Wheel Drive—Both rear wheels are driven by a pawl and ratchet drive. Lubricate the pawl and ratchet once a season with a silicone type lubricant.

Figure 16 shows the right rear hub cap. To take off the rear hub caps, remove the four screws around the edge of the hub cap. A cotter pin holds the ratchet in place. The pawl must pivot freely. Clean with a solvent, replace any broken or worn parts and lubricate.

The pawl and ratchet on the left rear hub cap are assembled facing the opposite way.

After reassembling, test the operation of the drive without the engine running. Engage the clutch and pull the mower backwards. Both wheels should lock. Push the mower forward and both wheels should rotate.



The wheels will "click" when the mower is pushed forward.

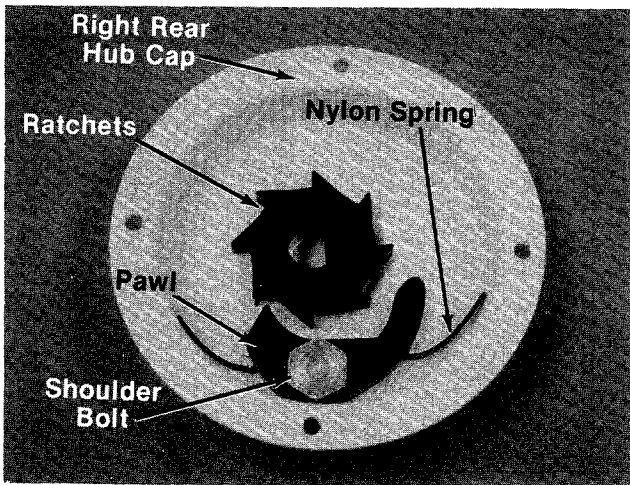


FIGURE 16.

MAINTENANCE



Be sure to disconnect and ground the spark plug wire before performing any repairs or maintenance.



When tipping the unit, empty the fuel tank and keep engine spark plug side up.

CUTTING BLADE

To remove the cutting blade for sharpening or replacement, remove the two hex nuts and lock washers which hold the blade to the blade brake/clutch. See figure 17.

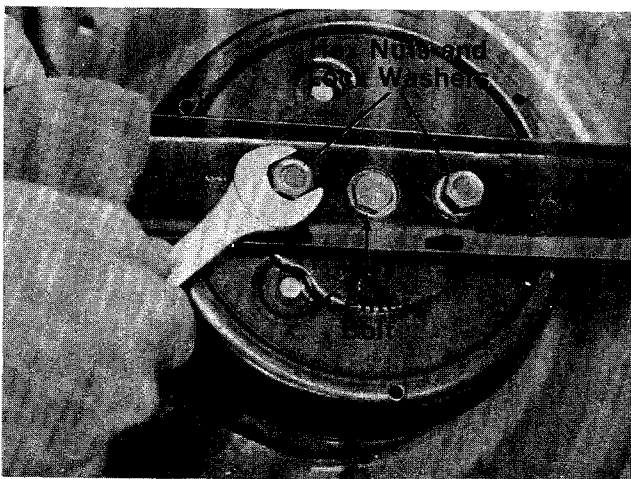


FIGURE 17.

When sharpening the blade, follow the original angle of grind as a guide. It is **extremely important** that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds, may cause damage to the mower and could break, causing personal injury.

The blade can be tested for balance by balancing it on a round shaft screwdriver. Remove metal from the heavy side until it balances evenly.

When replacing the blade, be sure to install the blade with the side of the blade marked "Bottom" (or with part number) facing the ground when the mower is in the operating position.

Blade Mounting Torque

Make certain that the center bolt which secures the blade brake/clutch and the two hex nuts which secure the blade are tightened to between 350 inch pounds (minimum) and 600 inch pounds (maximum).

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

DECK

The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower forward or on its side and scraping clean with a suitable tool or by washing with a stream of water from a garden hose.



Do not direct the stream of water at a hot engine as damage to the engine may result.

ENGINE OIL

Check oil level before starting and after every 5 hours of operation. ADD oil as necessary to keep level to full mark on dipstick. Before removing dipstick, clean area around dipstick to prevent dirt from entering oil fill opening. Engine should be in a level position when checking oil.

Change oil after first 5 hours of operation. Thereafter change every 25 hours. Change oil while engine is warm. Oil may be drained thru oil fill opening by tipping the unit on its side. Oil capacity 1 1/4 pints.

AIR CLEANER

Service air cleaner every 25 hours under normal conditions. Clean every few hours under extremely dusty conditions. Poor engine performance and flooding usually indicates that the air cleaner should be serviced.

To service air cleaner, refer to the separate engine manual packed with your mower.

SPARK PLUG

The spark plug should be cleaned and the gap reset once a season. Spark plug replacement is recommended at the start of each mowing season; check engine manual for correct plug type and gap specifications.

BELT REPLACEMENT



Always stop engine and disconnect spark plug wire before performing any repairs or maintenance on the mower.

1. Place a piece of plastic film under the gasoline cap and tighten it. The plastic prevents gasoline from draining from the air vent in the cap.
2. Tip the mower forward. Place the handle of the mower against a bench so that the bottom of the deck can be reached.
3. Remove the two hex nuts and lock washers on the blade. Remove the blade from the blade brake/clutch. See figure 18.
4. Remove the four carriage bolts holding the lower deck to the frame. See figure 18.

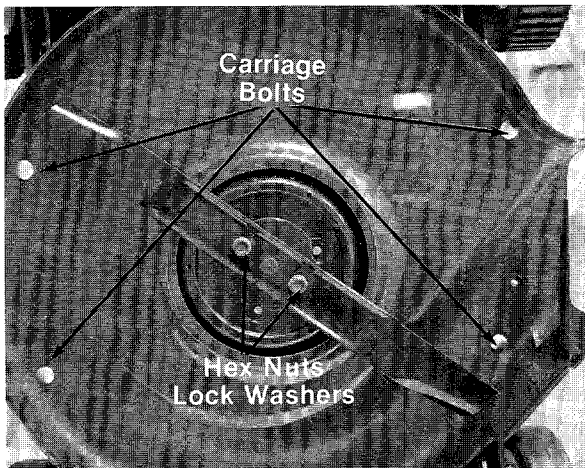


FIGURE 18.

5. Remove the two screws holding the belt guard cover on top of the deck. See figure 19.

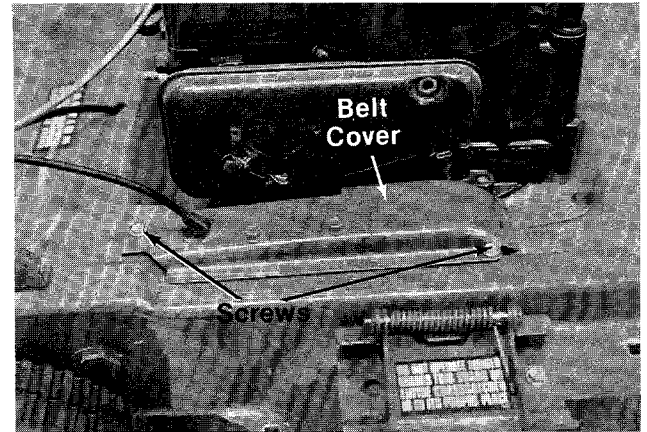


FIGURE 19.

6. Unhook the belt from the idler pulley. See figure 20.

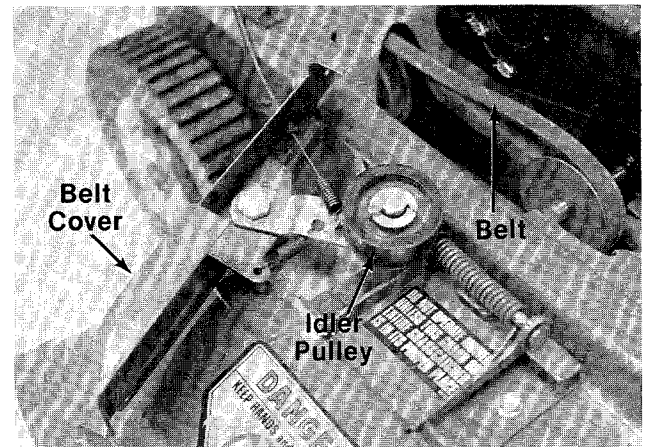


FIGURE 20.

7. Remove both rear wheel hub caps by removing the four screws on each one. See figure 21.



Mark the hub caps right and left. They are not interchangeable.

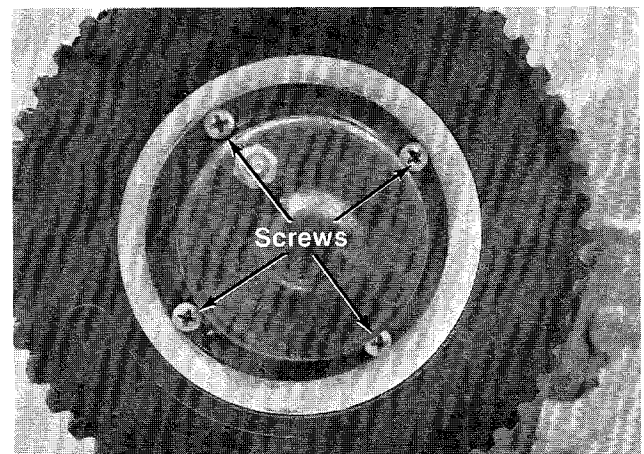


FIGURE 21.

- Remove the cotter pin on the RIGHT WHEEL ONLY and remove the ratchet. See figure 22.



Mark the outside of the ratchet so it is not assembled backwards or refer to figure 22 for reassembly.

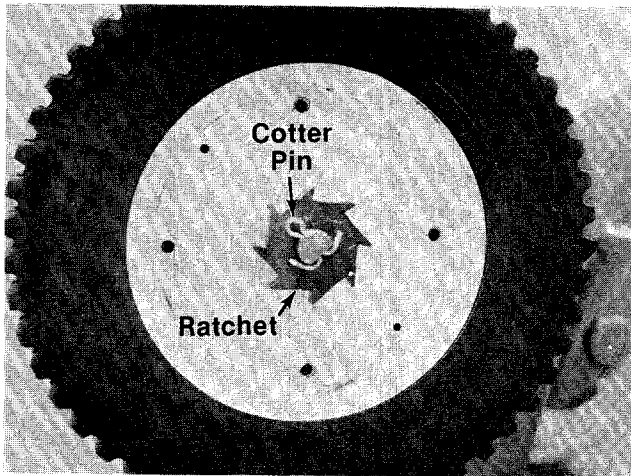


FIGURE 22.

- Remove the large shoulder bolt and master link on the chain. See figure 23.

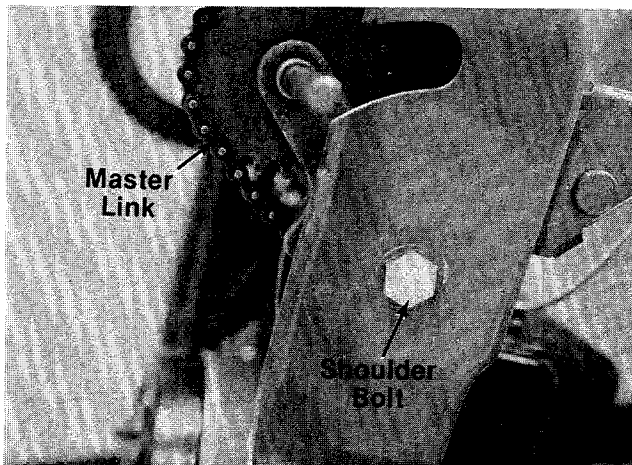


FIGURE 23.

- Remove the cotter pin next to the bearing by the left wheel. See figure 24. Slide the axle to the left. The belt can be removed. See figure 25.

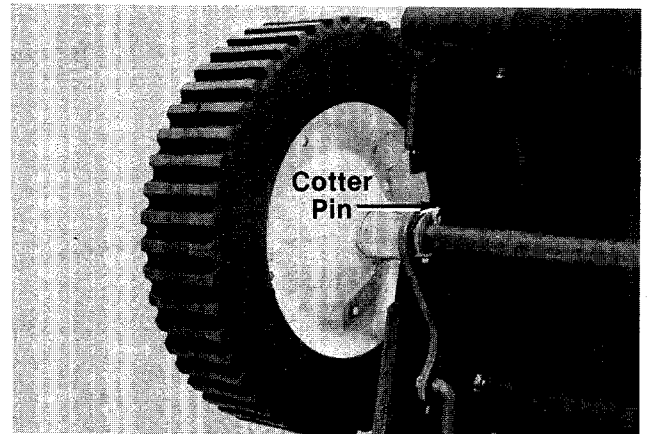


FIGURE 24.

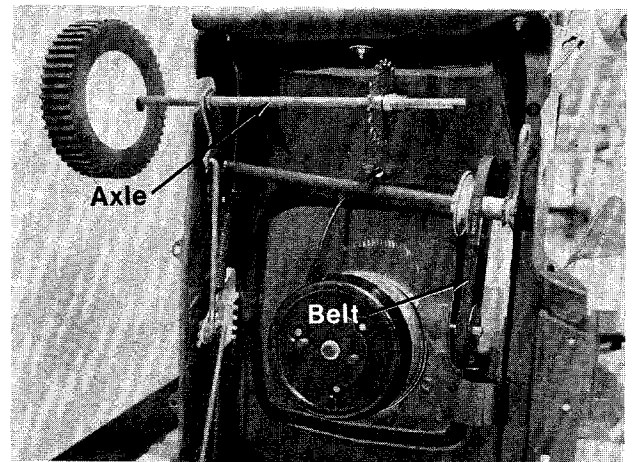


FIGURE 25.

- Reassemble in reverse order with new belt, making certain the idler pulley is under the belt. See figure 26.
- Remove plastic film from gas tank cap.

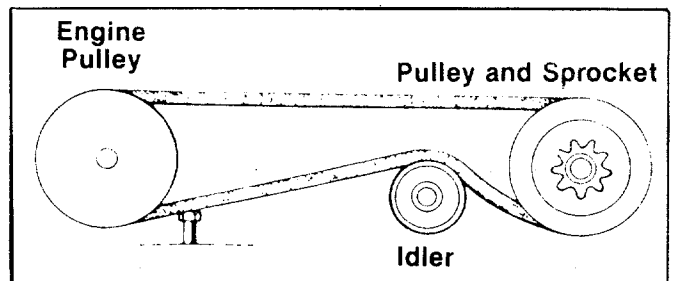


FIGURE 26.

BLADE BRAKE/CLUTCH

This unit is equipped with a blade brake/clutch. If for some reason the blade brake/clutch becomes inoperative, it is suggested that all repair work on the blade brake/clutch should be performed by an authorized service dealer. The unit should be inspected by an authorized service dealer if any of the following conditions are noticed.

1. Frayed clutch control cable.
2. Leaking oil seal (oil collection on the floor during mower storage).
3. Extensive vibration of the unit.

Blade Brake/Clutch Removal

1. Disconnect the spark plug wire and ground it against the engine block.
2. Empty fuel tank and drain oil from crankcase.
3. Remove the cable ties which secure control cables to the handle.
4. Remove one truss machine screw on the inside of control housing as shown in figure 27. Loosen the truss machine screw on the outside of the control housing until the control housing halves can be separated enough for the control cable to be freed.

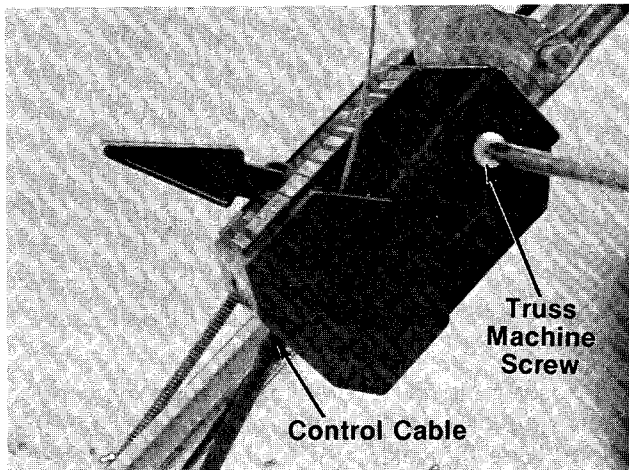


FIGURE 27.

5. Disconnect the "Z" fitting on the blade brake/clutch cable from the clutch control handle. See figure 27. Slide the blade brake/clutch cable out of the control housing.
6. Disconnect the throttle control cable from the engine by loosening screw on engine and disconnecting the "Z" fitting. See figure 28.
7. Tip the mower on its side. Remove the blade by removing two hex nuts and lock washers. Refer to figure 17.

NOTE

When reassembling, tighten hex nuts to between 350 and 600 in. lbs.

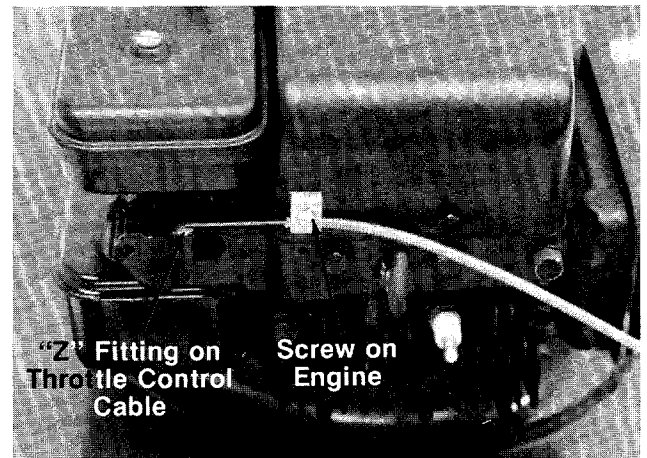


FIGURE 28.

8. Remove the center bolt as follows.
 - a. Insert a screwdriver into the slot provided in the blade brake/clutch housing where the control cable enters housing. See figure 29.
 - b. Place a 9/16" wrench on the center bolt. Turn the wrench slowly until the screwdriver catches in a groove provided inside the clutch. The screwdriver will now keep the clutch from turning, and the center bolt, and two Belleville washers may be removed.

IMPORTANT

Upon reassembly, be certain to tighten center bolt to between 350 and 600 in. lbs.

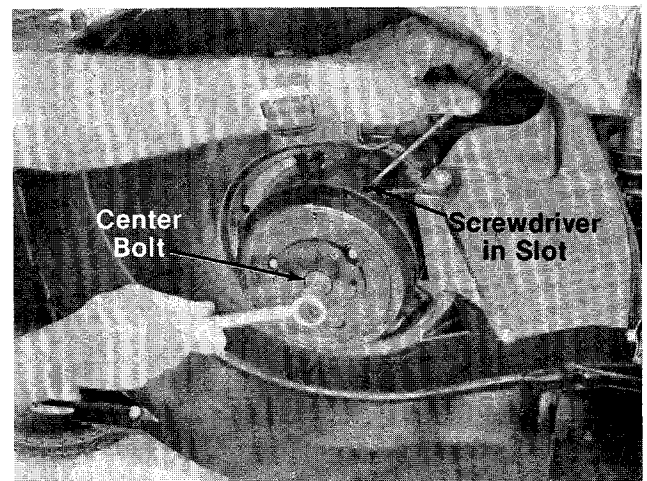


FIGURE 29.

9. Support the engine with one hand. Remove the three self-tapping screws which secure the deck and blade brake/clutch to the engine. A 1/2" socket wrench is required. See figure 30.

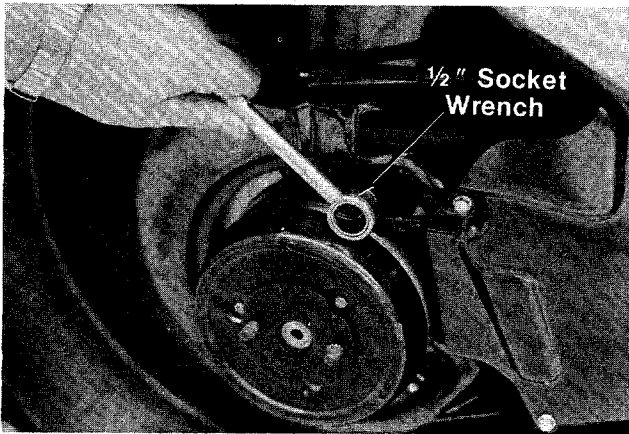


FIGURE 30.

10. Slide the blade brake/clutch cable through the hole in the deck as you lift off the engine and blade brake/clutch. Be careful not to kink control cable.
11. Remove blade brake/clutch from engine crankshaft.

Blade Brake/Clutch Installation

1. Place the new blade brake/clutch on engine crankshaft. Line up holes on blade brake/clutch with mounting holes on engine.
2. Place the two belleville washers onto crankshaft. Cupped side of washers must be against the blade brake/clutch. Secure with hex bolt finger tight only.
3. Place cable through engine mounting hole on deck.
4. Reverse steps 1 through 10 of preceding section for reassembly.

OFF-SEASON STORAGE

The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the lubrication instructions.

2. Refer to engine manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Store mower in a dry, clean area.

HANDLE STORAGE

The handle can be stored in an upright position to take less space. Move hairpin cotters to outer hole on weld pins (see figure 2). Grasp the lower handle at the bottom and push inward slightly. Tip the handle forward. It will lock in this position. Reverse this procedure to place the handle in the operating position.

On units equipped with hand knobs, the handle may also be folded away completely for storage.



Be careful not to kink or pinch blade brake/clutch cable when folding the handle for storage.

1. Remove hairpin cotters from inner hole on weld pins on handle mount brackets. Place in outer hole.
2. Loosen the two hand knobs on the handle.
3. Push inward on the bottom of each side of the lower handle, and push forward.
4. Fold the upper handle back and down.

To take the handle out of storage position, proceed as follows.

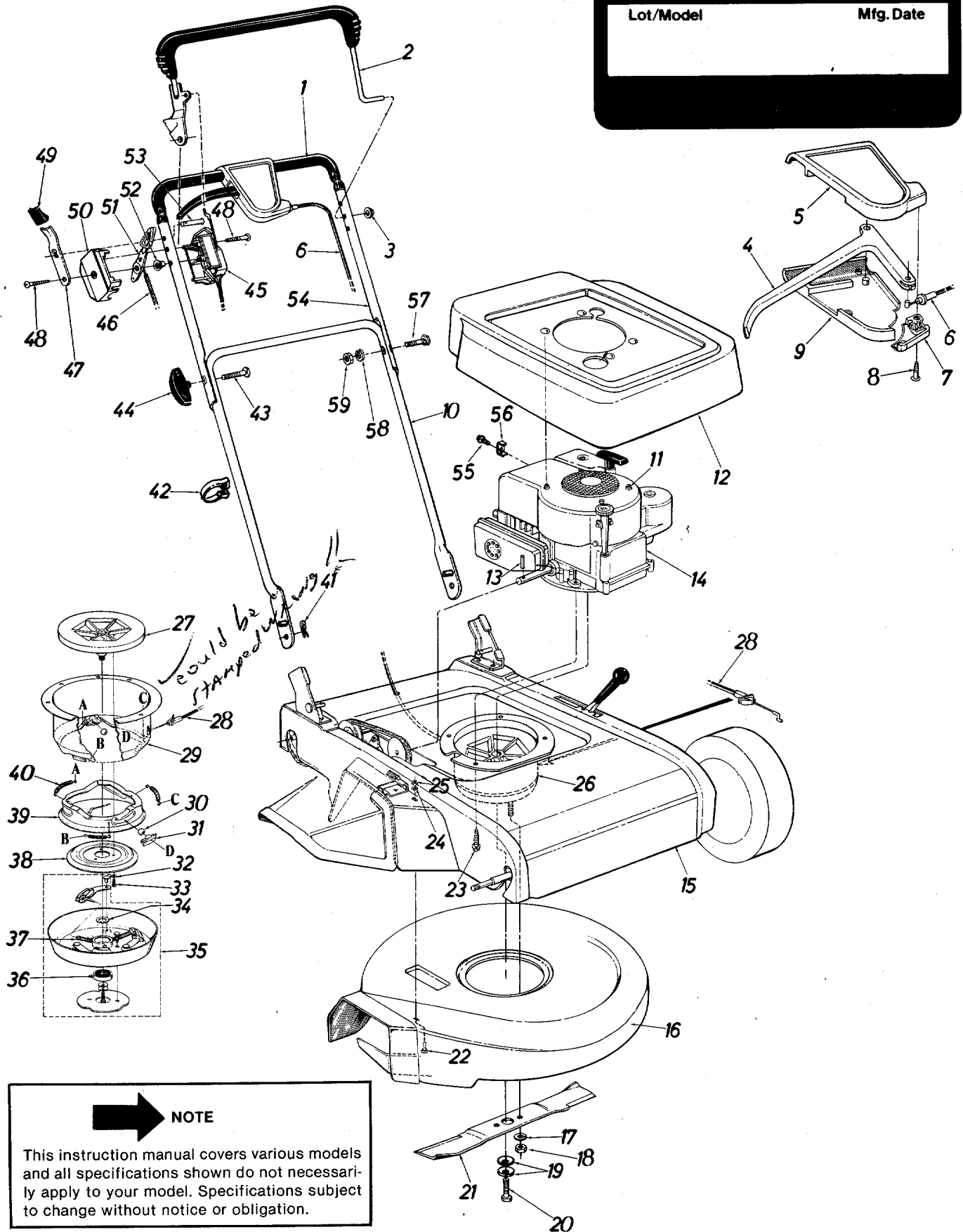
1. Lift the upper handle up and towards the rear.
2. Pull the handle back until it locks into the operator's position.
3. Tighten the two hand knobs securely.
4. Move the hairpin cotters to the inner hole on the weld pins.

Model 294

Meets CPSC Blade Safety Requirements

Lot/Model

Mfg. Date



Model 294

PARTS LIST FOR MODEL 294 ROTARY MOWER

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	718-0145		Grip		30	741-0326		Steel Ball 1/2" Dia.	
2	731-0610		Control Handle—R.H.		31	731-0520		Ball Block	
3	726-0135		Cap Speed Nut 5/16 Rod		33	710-0875		Hex TT-Tap L-Scr. 1/4-20 x .75" Lg.	
4	731-0620		Control Lever					Fl-Wash. .69" I.D. x 1.06" O.D.	
5	731-0617		Control Cover Half—Upper		34	736-0333		Clutch Blade Housing Ass'y.	
6	746-0464		Drive Clutch Cable—59"		35	14300		Ball Bearing	
7	731-0619		Cable Mounting Cap		36	741-0124		Compression Spring	
8	710-0841		Flat C'Sunk Hd. Tap Scr. #10 x 1" Lg.		37	732-0396		Clutching Cone	
9	731-0618		Control Cover Half—Lower		38	14304		Brake Cup Cone	
10	749-0373		Lower Handle (Chrome)		39	14305		Extension Spring	
	749-0372		Lower Handle (Painted)		40	732-0397		Int. Cotter Pin 5/16" Dia.	
11	726-0219		Snap-On Scr. #8 x .38		41	714-0104		Cable Tie	
12	731-0635		Shroud		42	726-0192		Curved Hd. Bolt 5/16-18 x 1.75" Lg. (Optional)	
13	715-0144		Spring Pin 3/16 Dia. x 1.5" Lg.		43	710-0405		Hand Knob (Optional)	
14	—		Engine		44	09966		Clutch Panel Half	
15	14939		Upper Deck Ass'y.		45	731-0526		Throttle Wire—43"	
16	11425		Lower Deck Ass'y.		46	746-0417		Lockout Spring	
17	736-0169		L-Wash. 3/8" I.D.*		47	732-0401		Truss Mach. Tap Scr. #12 x 1.5" Lg.	
18	712-0328		Hex Nut 3/8-24 Thd. (Grade 8)		48	710-0796		Spring Lever Knob	
19	736-0105		Belleville Washer		49	720-0190		Control Panel Half	
20	710-0818		Hex Bolt 3/8-24 x 2" Lg. (Grade 8)		50	731-0523		Throttle Control Lever	
21	742-0221		21" Blade		51	731-0528		Control Disc Pin	
22	710-0260		Carr. Bolt 5/16-18 x .62" Lg.		52	731-0524		Lock Pin	
23	710-0654		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x 1" Lg.		53	731-0607		Upper Handle (Chrome)	
24	736-0119		L-Wash. 5/16" I.D.*		54	749-0537		Upper Handle (Painted)	
25	712-0267		Hex Nut 5/16-18 Thd.*			749-0539		Hex B-Tap Scr. #10 x .38" Lg.	
26	717-0488		Blade Brake/Clutch Ass'y. Comp.		55	710-0429		Casing Clamp	
27	719-0256		Fan Adapter		56	751-0333		Curved Carriage Bolt 5/16-18 x 1.38" Lg.	
28	746-0400		Blade Clutch Cable—46"		57	710-0671		L-Wash. 5/16" I.D.*	
29	14308		Clutch Housing		58	736-0119		Hex Nut 5/16-18 Thd.*	
					59	712-0267			

(462—Red Flake)

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

When ordering parts, if color or finish is important use the appropriate color code shown above. (e.g. Red Flake Finish—11428 (462).)

NOTE:

The use of any accessory on this Rotary Mower other than those manufactured by the mower manufacturer is **not** recommended.

GRASS CATCHER Model 003 is available as optional equipment for the mower shown in this manual.



WARNING

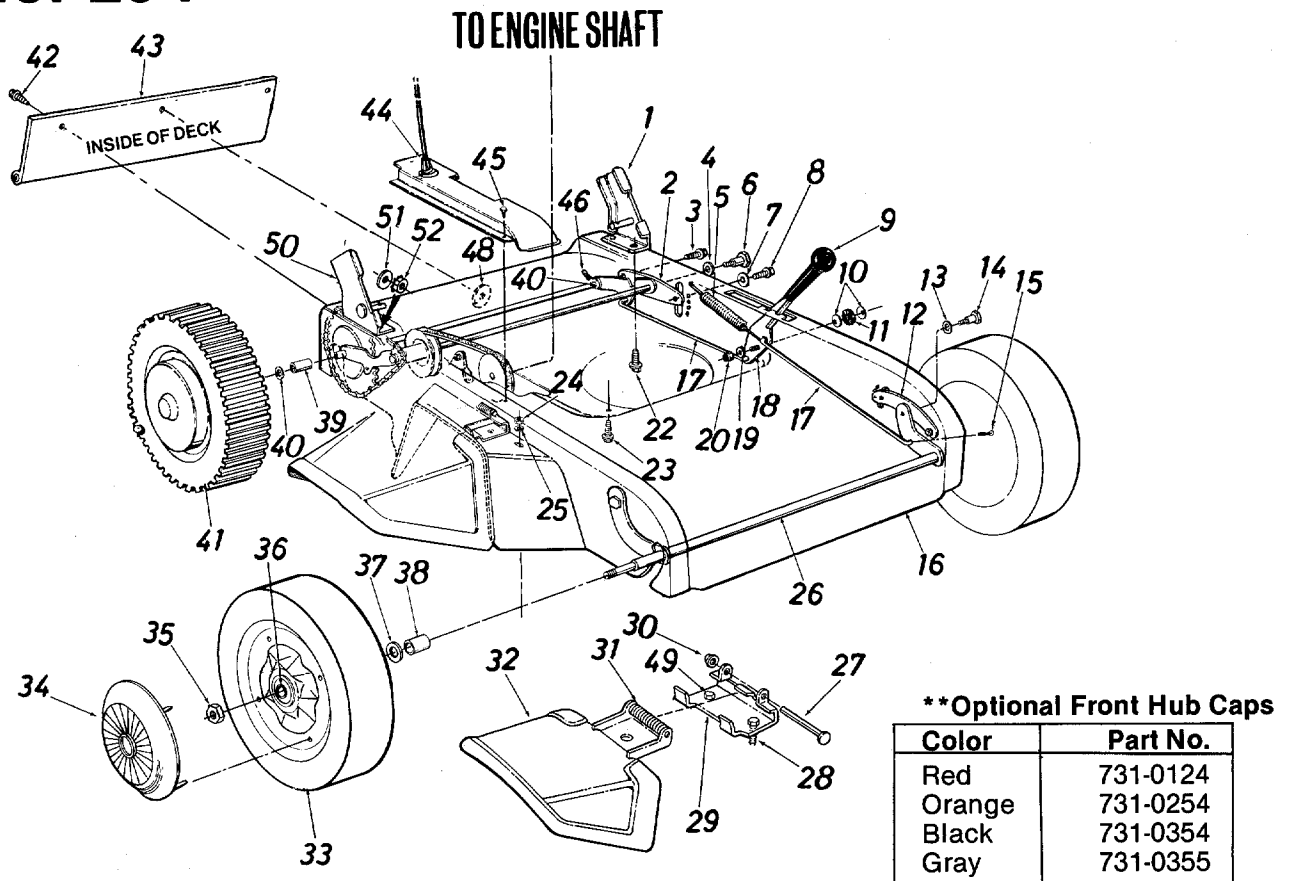
1. DO NOT operate the mower without the entire grass catcher or chute deflector in place.
2. DO NOT operate the mower without the protective shield on the rear of the deck in place.

NOTE:

Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-0176.

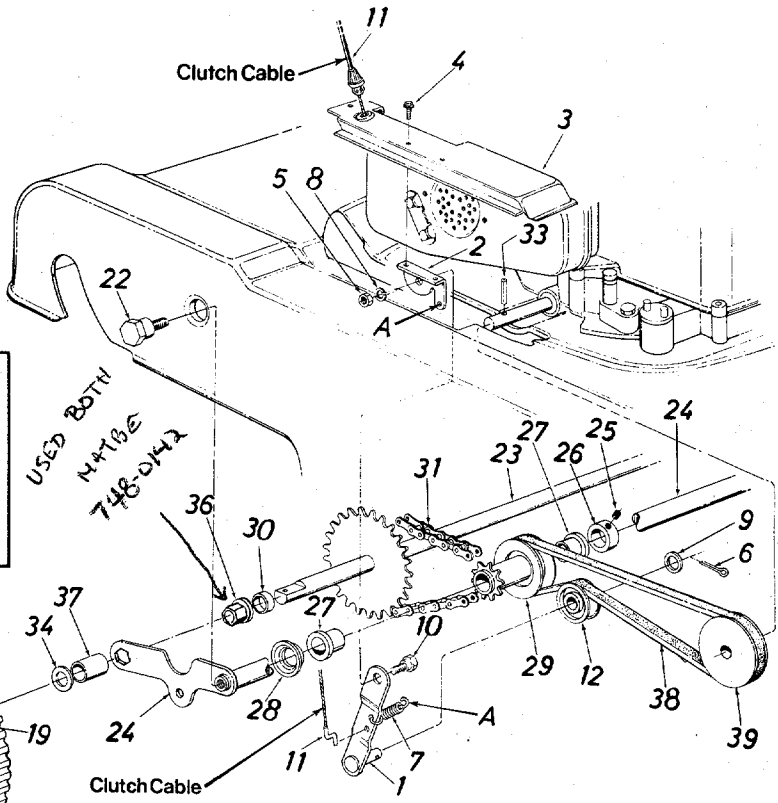
Model 294



PARTS LIST FOR MODEL 294 ROTARY MOWER

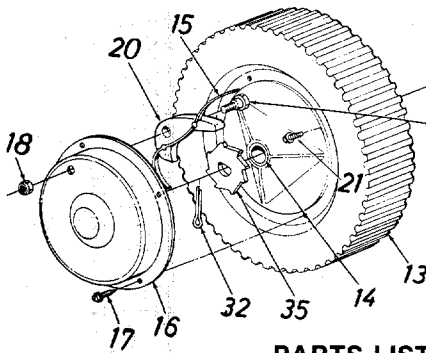
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	12935		Handle Mount Brkt. Ass'y—L.H.		28	710-0352		Hex B-Tap Scr. ¼ x .38 Lg.	
2	14190		Rear Pivot Brkt.		29	11130		Adapter Plate	
3	710-0654		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x 1" Lg.		30	726-0106		Cap Speed Nut ¼" Rod	
4	736-0221		Int. L-Wash. 3/8 I.D.		31	732-0253		Torsion Spring	
5	732-0121		Extension Spring		32	11679		Chute Deflector Ass'y.—Comp.	
6	738-0149		Shld. Bolt .625 Dia. x .425		33	734-0874		Wheel Ass'y. Comp. 8 x 1.75	
7	736-0105		Belleville Washer		34	**		Hub Cap—Front	
8	710-0654		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x 1" Lg.		35	712-0200		Hex Ins. L-Nut ½-20 Thd.	
9	720-0143		Grip—Black		36	741-0180		Flanged Ball Brg. .500" I.D.	
10	736-0105		Belleville Washer		37	736-0160		FI-Wash. .531 I.D. x .93 O.D.	
11	735-0127		Rubber Washer		38	748-0190		Spacer	
12	14189		Front Pivot Brkt.		39	750-0190		Spacer	
13	736-0221		Int. L-Washer 3/8 I.D.		40	736-0160		FI-Wash. .531 I.D. x .93 O.D.	
14	738-0149		Shld. Bolt .625 Dia. x .425		41	734-0880		Wheel Ass'y. Comp. 8 x 1.75	
15	714-0507		Cotter Pin 3/32 x ¾ Lg.		42	710-0289		Hex Bolt ¼-20 x .50" Lg.*	
16	14939		Upper Deck Ass'y.		43	731-0586		Rear Flap Ass'y.	
17	10080		Height Adj. Rod		44	14186		Belt Guard	
18	10666		Height Adj. Lever		45	710-0224		Hex Self-Tap Scr. #10 x .50" Lg.	
19	736-0160		FI-Wash. .531 I.D. x .93 O.D.		46	714-0115		Cotter Pin 1/8" Dia. x 1.0" Lg.	
20	712-0711		Hex Jam Nut 3/8-24 Thd.		47	741-0324		Hex Flange Brg.	
22	710-0603		Hex Wash. Hd. B-Tap Scr. 5/16-18 x .5" Lg.		48	736-0211		FI-Wash. .285 I.D. x 1.25 O.D.	
23	710-0654		Hex Wash. Hd. TT-Tap Scr. 3/8-16 x 1" Lg.		49	710-0776		Hex Wash. Hd. AB-Tap Scr. ¼ x .62" Lg.	
24	712-0267		Hex Nut 5/16-18 Thd.*		50	12936		Handle Mount Brkt. Ass'y.—R.H.	
25	736-0119		L-Wash. 5/16" I.D.*		51	736-0173		FI-Wash. .281 I.D. x .73 O.D.	
26	10662		Front Axle Ass'y.		52	712-0271		Sems Nut ¼-20 Thd.	
27	711-0555		Pivot Pin						

Model 294



NOTE: The engine is not under warranty by the mower manufacturer... If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

Find It Fast
In The
Yellow Pages



PARTS LIST FOR MODEL 294 ROTARY MOWER

EW RT	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
	1	14181	Idler Brkt. Ass'y.		23	11866		Rear Shaft Ass'y.	
	2	14245	Idler Mounting Brkt.		24	14937		Rear Axle Ass'y.	N
	3	14186	Belt Guard		25	710-0421		Set Scr. 5/16-18 x .25" Lg. Cup Point	
	4	710-0776	Hex Wash. Hd. AB-Tap Scr. 1/4" x .62" Lg.		26	711-0169		Collar 5/8" I.D.	
	5	712-0267	Hex Nut 5/16-18 Thd.*		27	741-0249		Flange Brg. .634" I.D. Plastic	
	6	714-0115	Cotter Pin 1/8" Dia. x 1.00" Lg.*		28	10665		Spacer	
	7	732-0357	Extension Spring .33" O.D. x 1.12" Lg.		29	756-0191		Pulley w/9 Tooth Sprocket Ass'y.	
	8	736-0119	L-Wash. 5/16" I.D.*		30	711-0494		Spacer .53" I.D. x .75" O.D. x .38" Lg.	
	9	736-0160	FI-Wash. .531" I.D. x .930" O.D. x .050		31	713-0256		#48 Chain 1/2" Pitch x 32 Links	
	0	738-0255	Shld. Bolt .375" Dia. x 1.89		32	714-0115		Cotter Pin 1/8" Dia. x 1.00" Lg.*	
	1	746-0464	Clutch Cable—59"		33	715-0144		Spring Pin Spir. 3/16" Dia. x 1.50" Lg.	
	2	756-0360	Flat Idler 1.62" Dia.		34	736-0160		FI-Wash. .531" I.D. x .930" O.D. x .050	
	3	734-0880	Wheel Ass'y. Comp. (Rear)		35	748-0187		Ratchet—Rear Wheel	
	4	741-0262	Flange Brg. 1/2" I.D. (Rear)		36	741-0324		Hex Flange Brg. .506" I.D.	
	5	10622	Spring—Nylon		37	750-0190		Spacer .756" I.D. x .89" O.D. x .960" Lg.	
	6	10647	Rear Hub Cap		38	754-0114		"V"-Belt 1/2" x 24" Lg.	
	7	710-0748	Pan Hd. Tap Scr. #12 x .50" Lg.		39	756-0384		1/2" "V"-Pulley .50" I.D. x 2.52" O.D.	
	8	712-0324	Hex Ins. L-Nut 1/4-20 Thd.						
	9	738-0137	Shld. Bolt .342" Dia. x .268						
	0	748-0188	Pawl						
	1	710-0200	Hex Wash. Hd. Tap Scr. #8 x .50" Lg.						
	2	738-0149	Shld. Bolt .625" Dia. x .425" Lg.						

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service are available through the authorized service firms listed below. All orders should specify the model number of your unit, part numbers, description of parts and the quantity of each part required.

BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing **Engines—Gasoline**, Briggs & Stratton or Tecumseh Lauson.

NOTE: If any parts are found to be missing or defective upon assembly of this unit, write to advise the factory so that immediate replacement can be made.

ALABAMA	BIRMINGHAM	
Auto Electric & Carburetor Co.	2625 4th Ave. S.	35233
ARKANSAS	NORTH LITTLE ROCK	
Sutton's Lawn Mower Shop	5301 Roundtop Drive Box 368, Rt. 4	72117
CALIFORNIA	PORTERVILLE	
Billious	75 North D Street	93257
COLORADO	DENVER	
Spitzer Industrial Products Co.	Box 29114, 6601 N. Washington St.	80229
FLORIDA	JACKSONVILLE	
Radco Distributors	4909 Victor St. Box 5459	32207
	OPA LOCKA	
Small Eng. Dist.	2351 N.W. 147th St.	33054
GEORGIA	EAST POINT	
East Point Cycle & Key	2834 Church St.	30344
ILLINOIS	LYONS	
Keen Edge Co.	8615 Ogden Ave.	60534
INDIANA	ELKHART	
Parts & Sales Inc.	2101 Industrial Pkwy.	46514
IOWA	DUBUQUE	
Power Lawn & Garden Equip.	2551 J.F. Kennedy	52001
LOUISIANA	MONROE	
Mid-South Power	700 Pine St.	71201
	NEW ORLEANS	
Suhren Engine Co.	8330 Earhart Blvd.	70118
MARYLAND	TAKOMA PARK	
Center Supply Co.	6867 New Hampshire Ave.	20912
MASSACHUSETTS	SPRINGFIELD	
Morton B. Collins Co.	300 Birnie Ave.	01107
MICHIGAN	LANSING	
Lorenz Service Co.	2500 S. Pennsylvania	48910
	MOUNT CLEMENS	
Power Equipment Dist.	340 Hubbard	48043
MINNESOTA	HOPKINS	
Hance Distributing Inc.	420 Excelsior Ave. W.	55343
MISSISSIPPI	BILOXI	
Biloxi Sales & Service, Inc.	506 Caillavet St.	39533
MISSOURI	KANSAS CITY	
Automotive Equip. Service	3117 Holmes St.	64109
	ST. JOSEPH	
Ross-Frazier Supply Co.	8th and Monterey	64503
	ST. LOUIS	
Henzler, Inc.	2015 Lemay Ferry Road	63125
NEW JERSEY	BELLMAWR	
Lawnmower Parts Inc.	717 Creek Rd.	08030
NEW MEXICO	ALBUQUERQUE	
Spitzer Eng. & Parts	1023 Third Ave. N.W.	87103
NEW YORK	CARTHAGE	
Gamble Dist., Inc.	West End Ave.	13619

NORTH CAROLINA	GOLDSBORO	
Smith Hardware Co.	515 N. George St.	27530
	GREENSBORO	
Dixie Sales Company	335 N. Green	27402
OHIO	CARROLL	
Stebe's Mid-State Mower Supply	Box 366, 71 High St.	43112
	CLEVELAND	
Bleckrie, Inc.	7900 Lorain Ave.	44102
	WADSWORTH	
National Central	687 Seville Rd.	44281
	YOUNGSTOWN	
Burton Supply Co.	1301 Logan Ave. Box 929	44501
OKLAHOMA	MUSKOGEE	
Victory Motors, Inc.	605 S. Cherokee	74401
OREGON	PORTLAND	
Kenton Supply Co.	8216 N. Denver Ave.	97217
PENNSYLVANIA	HARRISBURG	
EECO Inc.	4021 N. 6th St.	17110
	PHILADELPHIA	
Thompson Rubber Co.	5222-24 N. Fifth St.	19120
	PITTSBURGH	
Bluemont Co.	11125 Frankstown Rd.	15235
	PUNXSUTAWNEY	
Frank Roberts & Sons	R.D. 2	15767
TENNESSEE	KNOXVILLE	
Master Repair Service	2000 Western Ave.	37921
	MEMPHIS	
American Sales & Service, Inc.	3035-43 Bellbrook	38116
TEXAS	DALLAS	
Marr Brothers, Inc.	423 E. Jefferson	75203
	FORT WORTH	
Woodson Sales Corp.	1702 N. Sylvania	76111
	HOUSTON	
Bullard Supply Co.	2409 Commerce St.	77003
	SAN ANTONIO	
Engine House Inc.	8610 Botts Lane P.O. Box 17867	78217
UTAH	SALT LAKE CITY	
A-1 Engine & Mower Co.	439 E. 900 So.	84111
VIRGINIA	ASHLAND	
RBI Corp.	Lake Ridge Rd. 101 Cedar Run Dr.	23005
WASHINGTON	SEATTLE	
Bailey's Inc.	1414 14th Ave.	98122
WISCONSIN	MARSHFIELD	
Power Pac	301 E. 29th St.	54449
	APPLETON	
Appleton Automotive Supply Co.	123 S. Linwood Ave. P.O. Box 798	54911
	TWIN LAKES	
E-Kon Small Engine Spec.	122 Lance Dr.	53181

WARRANTY PARTS AND SERVICE POLICY

(0782)

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES:

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.